

United States Department of Energy

National Spent Nuclear Fuel Program

Program Management Plan



December 2002

U.S. Department of Energy
Idaho Operations Office

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Program Management Plan

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Program Management Plan

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ABSTRACT

This program management plan is the document that sets forth the mission, objectives, plan, organization, and responsibilities for those managing the U.S. Department of Energy (DOE) National Spent Nuclear Fuel Program (NSNFP). This plan is consistent with the *DOE-Owned Spent Nuclear Fuel Strategic Plan*; the spent nuclear fuel agreement among the State of Idaho, U.S. Navy, and the DOE; and *The Memorandum of Agreement for Acceptance of Department of Energy Spent Nuclear Fuel and High-Level Radioactive Waste*. This program management plan will be revised when necessary to reflect any changes in program strategy, budget, organization, responsibility, or other change that might affect the mission and objectives of the NSNFP.

CONTENTS

REVISION LOG.....	iv
ABSTRACT.....	vii
ACRONYMS.....	xi
1. INTRODUCTION.....	1
1.1 Background.....	1
1.2 Purpose of the NSNFP.....	2
1.2.1 Purpose of the Program Management Plan.....	2
1.2.2 Plan Revisions.....	3
2. MISSION AND OBJECTIVES.....	4
2.1 Mission.....	4
2.2 Objectives.....	4
2.2.1 Objective 1—Address Research, Development, and Testing Needs.....	4
2.2.2 Objective 2—Ensure DOE SNF Acceptance Criteria are Established.....	5
2.2.3 Objective 3—Ensure Repository License Includes DOE SNF.....	6
2.2.4 Objective 4—Provide Management, Integration, and Communication.....	6
3. MANAGEMENT ORGANIZATION AND RESPONSIBILITIES.....	7
3.1 National Spent Nuclear Fuel Program Manager, DOE-ID.....	8
3.2 NSNFP Quality Assurance Program Manager.....	8
3.3 NSNFP Program Support Organization (Manager and Staff).....	9
3.4 Office of Integration and Disposition (EM-20).....	10
3.5 Office of Nuclear Material and Spent Fuel (EM-21).....	10
4. NSNFP INTERFACES.....	12
4.1 NSNFP and Supporting Organizations.....	12
4.1.1 NSNFP.....	12
4.1.2 NSNFP Program Support Office.....	13
4.1.3 NSNFP Quality Assurance Program.....	13
4.1.4 NSNFP Quality Assurance Staff.....	13
4.2 Office of Environmental Management.....	14

4.3	Office of Civilian Radioactive Waste Management	14
4.3.1	Office of Repository Development	14
4.3.2	Office of Quality Assurance (RW-3)	14
4.4	DOE SNF Field Offices	14
4.5	External Interfaces	15
4.5.1	Other Federal Agencies.....	15
4.5.2	Industrial Standards Organizations	15
4.5.3	Other DOE National and Waste Programs.....	15
5.	SUMMARY WORK SCOPE.....	16
5.1	Work Breakdown Structure.....	16
5.2	Work Breakdown Structure Dictionary	16
5.2.1	Project Baseline Summary Level.....	16
5.2.2	Project Level	16
5.2.3	Control Account Level.....	17
6.	QUALITY ASSURANCE.....	18
6.1	Policy Statement	18
6.2	DOE NSNFP Quality Assurance Program Management.....	18
7.	REFERENCES	20
	Appendix A—FY 2003 Detailed Work Plan Summary.....	A-1

FIGURES

1.	NSNFP management and organization interface.....	7
2.	NSNFP interfaces	12
3.	NSNFP work breakdown structure.....	16

ACRONYMS

DOE	U.S. Department of Energy
DOE-HQ	U.S. Department of Energy—Headquarters
DOE-ID	U.S. Department of Energy—Idaho Operations Office
DOE-OR	U.S. Department of Energy—Oak Ridge Office
DOE-RL	U.S. Department of Energy—Richland Office
DOE-SR	U.S. Department of Energy—Savannah River Office
EM	Office of Environmental Management
FRR	foreign research reactor
INEEL	Idaho National Engineering and Environmental Laboratory
M&O	Management and Operations Contractor
MOA	Memorandum of Agreement
NEPA	National Environmental Policy Act
NRC	U.S. Nuclear Regulatory Commission
NSNFP	National Spent Nuclear Fuel Program
OQA	Office of Quality Assurance
OCRWM	Office of Civilian Radioactive Waste Management
QA	quality assurance
QAPM	Quality Assurance Program Manager
QAPP	Quality Assurance Program Plan
QARD	Quality Assurance Requirements and Description
QAS	Quality Assurance Staff
ROD	record of decision
RW	Office of Civilian Radioactive Waste Management
SNF	spent nuclear fuel
WBS	work breakdown structure

Program Management Plan

1. INTRODUCTION

This document is the program management plan for the U.S. Department of Energy (DOE) National Spent Nuclear Fuel Program (NSNFP). This plan is consistent with the *DOE-Owned Spent Nuclear Fuel Strategic Plan*¹; the spent nuclear fuel (SNF) agreement among the State of Idaho, U.S. Navy, and the DOE; and the *Memorandum of Agreement (MOA) for Acceptance of Department of Energy Spent Nuclear Fuel and High-Level Radioactive Waste*² (as amended by the July 2001 Action Memorandum³). It is also consistent with DOE policies and the decisions made through the National Environmental Policy Act (NEPA) process. This document provides NSNFP's organization, management, and plans for achieving its role in the ultimate disposition of DOE SNF.

1.1 Background

For many years the DOE has managed SNF to support various missions and programs. A process DOE used to manage this material was to chemically separate strategic material such as uranium or plutonium from the waste. As the need for uranium and plutonium decreased, however, it became necessary to store the unprocessed DOE SNF for extended periods of time. DOE had not intended for SNF to be in long-term storage.

In 1992, DOE decided to discontinue reprocessing SNF to recover strategic materials. Both the facilities used for storage and the fuel itself began experiencing the effects of "aging" from this extended storage. New efforts are now necessary to ensure fuel stabilization and facility management until decisions for SNF long-term disposition are made and implemented (per the *DOE-Owned Spent Nuclear Fuel Strategic Plan*).

The term "DOE SNF" will be used throughout this document to represent DOE-managed fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing. The fuel comes from research reactors, production reactors, naval reactors, etc., as well as SNF returned from domestic research reactors and from foreign research reactors (FRRs) to be managed by DOE.

In 1992, the Secretary of Energy directed the Assistant Secretary for the Office of Environmental Management (EM) to develop an integrated, long-term SNF management program. The program would consolidate under EM all DOE SNF and associated facilities not addressed by the DOE Office of Civilian Radioactive Waste Management (OCRWM). The OCRWM mission is to develop and manage a federal system for disposing all commercial SNF, DOE SNF, and high-level radioactive waste, resulting from atomic energy defense activities. EM is responsible for the management policy and process to prepare DOE SNF for transport and repository acceptance.

In June 1995, DOE issued the Record of Decision (ROD) on the *Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Program's Environmental Impact Statement*.⁴ The ROD selected "Alternative 4A, Regionalization by Fuel Type" as the chosen option. This ROD was modified to agree with the Consent Order (PSC 1995)⁵ issued on October 17, 1995, modifying the SNF shipments to and from the State of Idaho.

The amended version of the ROD mandates consolidation of all existing and newly generated SNF at three DOE sites prior to shipment for disposal as indicated below:

- Hanford production reactor fuel and fuel not requiring treatment will remain at Hanford; sodium-bonded Fast Flux Test Facility fuel will be shipped to the Idaho National Engineering and Environmental Laboratory (INEEL) for treatment.
- Naval fuel will be shipped to the INEEL for examination and interim storage.
- Nonaluminum-clad fuels will be consolidated at the INEEL, except Fort St. Vrain fuel, which is in Colorado and will remain there.
- Aluminum-clad fuels will be consolidated at the Savannah River Site.

1.2 Purpose of the NSNFP

In October 1995, the SNF settlement agreement (Consent Order PSC 1995) among the State of Idaho, the DOE, and the U.S. Navy designated the INEEL as the DOE lead laboratory for SNF. The NSNFP is performing this role as stated in the agreement, "DOE shall direct the research, development and testing of treatment, shipment and disposal technologies for all DOE spent fuel, and all such DOE activities shall be coordinated and integrated under the direction of the Manager, DOE-Idaho Operations Office."

In this role, the NSNFP works with OCRWM, the Savannah River Site, the INEEL, the Hanford Site, and the Oak Ridge National Laboratory to:

- Achieve safe and timely disposal of DOE SNF
- Address national DOE SNF issues by identifying information needs, interfaces, and acceptance criteria and developing compliance procedures
- Support OCRWM during the license application process to the U.S. Nuclear Regulatory Commission (NRC)
- Address quality assurance (QA).

The MOA for repository acceptance of DOE SNF further defined the role of the NSNFP. Through the MOA, the NSNFP works with OCRWM to seek to achieve safe and timely disposal of DOE SNF by identifying information needs, interfaces, and acceptance criteria. In addition, NSNFP and OCRWM work to develop compliance plans needed to support both the geologic repository construction authorization and license application to the NRC.

1.2.1 Purpose of the Program Management Plan

This program management plan defines the NSNFP role and establishes the process to plan and implement research, development, testing, and DOE site integration and coordination as part of the EM SNF mission. This plan performs the following functions:

- Defines the mission and objectives of the NSNFP

- Describes the organization of the NSNFP, including its management and structure as it relates to external organizations
- Explains the interfaces among DOE-Headquarters (DOE-HQ), the DOE field sites, OCRWM, and related projects
- Summarizes the planning process including schedules, milestones, and the budget process
- Addresses the management strategies for key projects within the NSNFP.

The NSNFP requires the integrated efforts of DOE-HQ, DOE field or operations offices, and contractors at various sites across the country to meet its objectives. This program management plan provides a uniform set of requirements and expectations for the NSNFP and also adheres to the established principles and guidelines for effective program planning and administration and DOE Order 430.1A, *Life Cycle Asset Management*.⁶

1.2.2 Plan Revisions

This program management plan is a living document that reflects the current status of the NSNFP. The document is controlled and will be revised as strategic decisions are made, progress is achieved, and additional information becomes available. At a minimum, limited revisions will be performed annually to embody the latest detailed work plan information.

2. MISSION AND OBJECTIVES

2.1 Mission

The NSNFP mission is to provide the technology and guidance needed to ensure safe, efficient handling and disposition of DOE-owned SNF.

2.2 Objectives

The NSNFP provides technology solutions and guidance for safe, efficient management of DOE SNF operating sites. In addition, it supports OCRWM in formulating a licensing strategy and by providing the analyses and research needed to consider all DOE SNF during the repository license application process. The following subsections describe the NSNFP objectives listed below:

- Objective 1—Address research, development, and testing needs
- Objective 2—Ensure DOE SNF acceptance criteria are established
- Objective 3—Ensure repository license includes DOE SNF
- Objective 4—Provide management, integration, and communication.

2.2.1 Objective 1—Address Research, Development, and Testing Needs

The NSNFP directs the research, development, and testing of treatment, shipment, storage, and disposal technologies for all DOE SNF. The NSNFP is challenged to help ensure safe, effective management of SNF generated from 55 DOE, university, and other domestic sites, and FRRs. With more than 250 types of fuel that must be managed, information and technology are vital to ensuring safe and efficient interim and long-term storage and transportation processes for all the DOE SNF.

The NSNFP collaborates with DOE laboratories to develop and deploy technologies. By coordinating common needs for research, technology development, and testing programs, the NSNFP can achieve cost efficiencies and eliminate redundant activities across all the DOE SNF sites. The NSNFP will address needs in four distinct areas of SNF management:

- Solutions for safe, efficient packaging and shipment technologies
- Solutions for safe, interim storage, and ultimate disposition at a repository
- Solutions for adequate characterization
- Compliance with safety and regulatory requirements.

2.2.1.1 Safe, Efficient Packaging and Shipment. According to the *Memorandum of Agreement for Acceptance of Department of Energy Spent Nuclear Fuel and High-Level Radioactive Waste*, EM will design and fabricate a standardized DOE SNF canister to accommodate the more than 250 types of DOE SNF. The NSNFP will support the development of the preliminary design, and DOE sites will be responsible for procurement of the canister and shipment.

The NSNFP will perform additional research and technology development to support the SNF canister and DOE SNF shipments as needed. A remote welding and nondestructive examination process for closure welds is a technology needs example for safe packaging.

2.2.1.2 Safe, Interim Storage and Repository Disposal. The NSNFP will perform materials science research to address the common materials-related risks of interim storage at DOE SNF sites and repository disposal for the DOE SNF. At present these include:

- Finalizing research on SNF degradation and release rate testing
- Developing a long-term corrosion-resistant advanced neutron absorber for components such as canister baskets
- Evaluating canister performance through materials aging, corrosion, degradations, and chemical reactivity testing.

2.2.1.3 Characterization. Consistent with the licensing strategy, the NSNFP must collect and evaluate DOE SNF information to increase confidence and minimize risk during the management of that fuel. The NSNFP will maintain a single source of technical information for all DOE SNF. The technical information will include isotopic information along with other information about mode of storage and physical location.

2.2.1.4 Compliance with Safety and Regulatory Requirements. The NSNFP will facilitate or perform research and contribute analysis in the following areas to minimize the risks associated with DOE SNF handling, transport, and disposal at the repository to include:

- Design basis event analysis to identify possible accident scenarios associated with the handling and management of SNF at the repository and propose appropriate protection for those events
- Total system performance assessment to forecast the behavior of DOE SNF at the proposed repository and for the regulatory time periods
- Criticality analysis to examine criticality safety of DOE SNF and to establish control methods.

2.2.2 Objective 2—Ensure DOE SNF Acceptance Criteria are Established

The NSNFP will provide a unified approach to the DOE SNF sites to prepare their fuel for transport to a repository. The NSNFP will provide guidance to DOE SNF sites to prepare fuel for transport and repository acceptance that is consistent with OCRWM requirements. It will also define the form and contents of the information package being shipped to the repository. The NSNFP will work with OCRWM to establish an acceptable information package for DOE SNF.

The program will provide the planning and integration to execute and conduct the necessary repository analyses and activities required to support the final disposal of DOE SNF. The NSNFP will support OCRWM information needs in the following areas to address repository acceptance requirements as they apply to DOE SNF:

- Postclosure performance
- Preclosure integrated safety assessment
- Criticality analysis.

2.2.3 Objective 3—Ensure Repository License Includes DOE SNF

The NSNFP will closely support the needs of the repository program to achieve safe and timely disposal of DOE SNF. The NSNFP will support OCRWM in identifying the needed information, interfaces, acceptance criteria, and compliance procedures for license application and construction authorization of the repository and for the transportation system necessary to transfer DOE SNF. Specific goals to meet this objective include:

- Ensuring the DOE SNF is included in the repository design and documents
 - Environmental Impact Statement (1997–2000)
 - Viability Assessment (1998)
 - Site Recommendation (2001)
 - License Application (2003)
- Ensuring DOE SNF is acceptable for repository receipt
- Simplifying and minimizing characterization requirements for geological disposition of DOE SNF
- Ensuring characterization information meets requirements
- Assisting DOE SNF sites with repository-ready interim storage issues
- Codisposing highly enriched uranium SNF with high-level waste as a base case
- Supporting activities related to the shipment technologies for DOE SNF
- Providing a preliminary design for a standardized DOE SNF canister to package fuel during transport and storage
- Establishing a licensing basis considering bounding analyses and performance-based criteria.

2.2.4 Objective 4—Provide Management, Integration, and Communication

The NSNFP will provide the policies, strategies, and programs for management of DOE SNF. It will coordinate DOE SNF program activities to establish the safest, most cost-effective path for interim storage and treatment while awaiting transportation to a geological repository.

The NSNFP will provide for the management direction and integration of NSNFP activities. The NSNFP will provide the planning, measurements, controls, and reporting needed to ensure its objectives are accomplished. NSNFP QA will maintain OCRWM acceptance of the NSNFP QA Program and will qualify and maintain acceptance of the DOE SNF site QA programs.

The NSNFP will establish mechanisms to facilitate communication with DOE-EM, OCRWM, DOE SNF sites, and the stakeholders. Teleconferences, strategy meetings, web pages integrated schedules, the DOE SNF database, and other mechanisms will be used to prompt effective communication to address DOE SNF acceptance issues.

3. MANAGEMENT ORGANIZATION AND RESPONSIBILITIES

Operating from the DOE-Idaho Operations Office (DOE-ID), the NSNFP organization supports the SNF Program mission through the Deputy Assistant Secretary for the Office of Integration and Disposition (EM-20) within the Office of Environmental Management (EM-1). Figure 1 illustrates the NSNFP management hierarchy and organization.

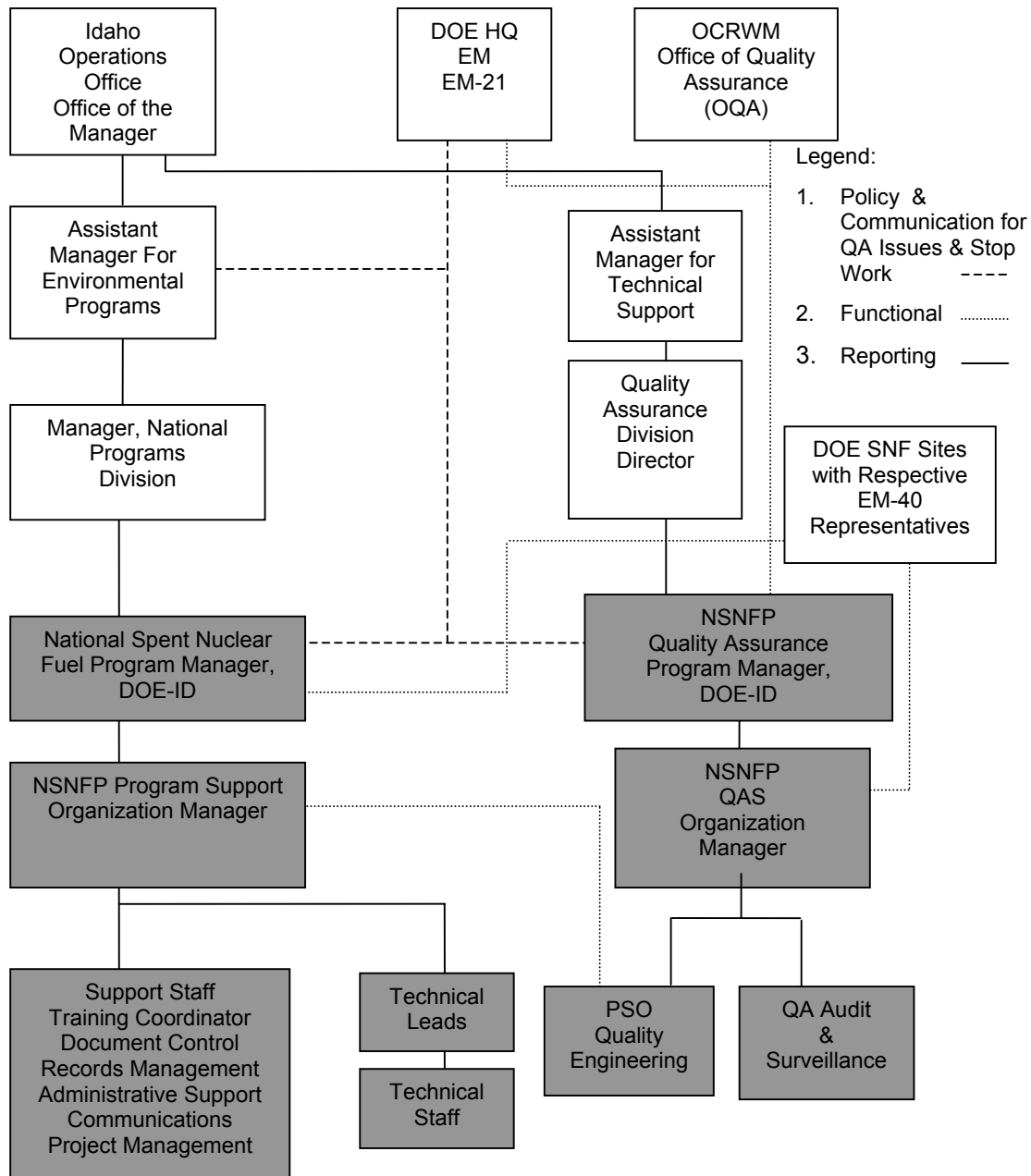


Figure 1. NSNFP management and organization interface.

3.1 National Spent Nuclear Fuel Program Manager, DOE-ID

The NSNFP Manager resides at DOE-ID and interfaces with the Manager of DOE-ID and the EM-21 representative to establish overall policy and direction for the NSNFP. The NSNFP Manager establishes the responsibilities and authorities of the NSNFP organizations and management, and assigns NSNFP technical work tasks to the Program Support Organization through approved detailed work plans. Through DOE-ID, the NSNFP Manager requests funding to support program plans. The INEEL was designated the lead support laboratory reporting to the Office of Nuclear Material and Spent Fuel. This position is further defined as part of the Consent Order between the State of Idaho, DOE, and the U.S. Navy. The NSNFP integrates and coordinates activities with the DOE SNF sites and with other DOE Operations Offices, and OCRWM. The NSNFP also performs a significant research and technology development role to provide solutions for DOE SNF management. Other responsibilities of the DOE-ID Manager of the NSNFP include:

1. Directs the preparation of controlled documents describing the internal and external organizational interfaces, organizational structures, requirements, and responsibilities for acceptance by the OCRWM Office of Quality Assurance (OQA)
2. Approves the NSNFP Quality Assurance Program Plan (QAPP) and the Program Management Plan including:
 - The management and structure of the NSNFP organization
 - The NSNFP QA Program Policy directing mandatory compliance with the NSNFP QA Program
3. Establishes and maintains an organizational structure to implement the NSNFP QA Program described by the QAPP
4. Ensures a QA organization for program assessments is established and maintained and is sufficiently independent from cost and schedule
5. Limits NSNFP assignments made to the DOE NSNFP QA Program Manager (QAPM) and ensures that the QAPM has no other assigned responsibilities that would prevent full attention to NSNFP QA matters
6. Establishes methods to escalate differences of opinion involving the NSNFP QA Program through the management chain to obtain resolution
7. Participates in the development and approval of memorandums of agreement between the NSNFP and DOE SNF sites
8. Participates in the development and approval of memorandums of agreement between the DOE EM Program and OCRWM
9. Approves NSNFP procedures.

3.2 NSNFP Quality Assurance Program Manager

The DOE-ID NSNFP QA Manager manages the NSNFP QA Program. The program was established to ensure OCRWM quality requirements are consistently implemented for DOE SNF site

activities that will be relied on to demonstrate DOE SNF compliance with repository acceptance. The NSNFP QA Manager assigns NSNFP technical work tasks to the Quality Assurance Staff (QAS) organization through approved detailed work plans. The NSNFP QA Program Manager functions include:

1. Participates in the development and approval of the NSNFP QAPP
2. Freely communicates with senior management positions within the NSNFP, DOE-ID, and the EM-21 Representative
3. Interfaces with OCRWM OQA
4. Interprets and approves QA program requirements
5. Provides Quality Engineering resources to the NSNFP Program Support Organization
6. Provides QA program reviews and acceptance of DOE SNF sites
7. Provides QA program assessments
8. Establishes internal controls and external interfaces for QA program oversight
9. Assigns tasks to the NSNFP QAS and monitors the NSNFP QAS for performance to baseline documents
10. Maintains a process to evaluate significant conditions adverse to quality and administer stop work actions if required
11. Participates in the development and approval of memorandums of agreement between the NSNFP and DOE SNF sites
12. Participates in the development and approval of memorandums of agreement between the DOE EM Program and the DOE OCRWM
13. Approves NSNFP procedures.

See Section 6 of this plan for further details. A QA staff supports the NSNFP QAPM.

3.3 NSNFP Program Support Organization (Manager and Staff)

The NSNFP Program Support Organization works under the direction of the NSNFP DOE-ID Manager. The organization supports the NSNFP mission by directing the research and technology development activities, and coordinating and integrating crosscutting functions with the DOE SNF sites, OCRWM, and other DOE organizations as requested by the NSNFP DOE-ID Manager. The functions of the NSNFP Program Support Organization are as follows:

1. Prepares program management documentation and detailed work plans, plans and schedules integrated DOE SNF activities, tracks program commitments, supports the program's systems engineering approach, provides general technical support, and participates in technical working group activities
2. Prepares life-cycle planning documentation and funding request documents consistent with site schedules and repository planning documents

3. Supports the development and recommendation of implementation strategies for NEPA, NRC, and other regulatory requirements; assists with the technical preparation and review of NEPA documents; and assists with the complexwide programmatic review of NEPA documents
4. Addresses complexwide SNF vulnerabilities and safety issues by researching, assisting in preparing, reviewing, and recommending approval/concurrence with such studies and documents
5. Implements and maintains a complexwide SNF base that contains information on the quantity, condition, type, location, origin, and enrichment of all SNF within the DOE inventory
6. Directs the research, development, and testing of treatment, shipment, and disposal technologies for all DOE SNF
7. Prepares technology integration plans, supports waste analysis activities, assists with performance assessments and acceptance criteria, and develops stabilization technologies
8. Recommends safe, cost-effective, and technologically appropriate interim storage approaches and budgetary strategies; supports assessments on existing storage facilities; and integrates detailed transportation plans on how DOE SNF is to be moved and the routes to be used
9. Provides technical assistance to meet and resolve NSNFP issues related to the QA requirements
10. Establishes and maintains quality record documents and quality training records.

3.4 Office of Integration and Disposition (EM-20)

EM-20 is responsible for promoting, enabling, and expediting site closure and project completion. EM-20 conducts and provides multi-site services that facilitate the timely, coordinated, safe, and cost-effective disposition of nuclear materials and waste, and the deactivation and decommissioning of excess contaminated facilities. Because interdependencies exist between DOE sites and between EM and other DOE programs, EM-20 conducts technical integration activities to develop integrated policy, planning, and technical and analytical guidance and assistance for the EM program. These activities include disposition strategies for nuclear materials and waste as well as provide services that promote, enable, and expedite disposition and closure. EM-20 identifies disposition pathways for excess nuclear materials, SNF, legacy and remediation wastes; analyses options with stakeholder input, and facilitates decision-making between offices and programs. EM-20 also implements multi-site services such as support for pollution prevention/waste management analyses, deactivation and decommissioning efforts, lessons learned and technology transfer activities, transportation, transuranic waste disposal at the Waste Isolation Pilot Plant, and the FRR SNF acceptance program.

3.5 Office of Nuclear Material and Spent Fuel (EM-21)

EM-21 directly reports to EM-20. The EM-21 office integrates DOE activities relating to nuclear materials stewardship in order to achieve safe, stable states for interim and long-term storage pending disposition. The EM-21 office also provides guidance and assistance to other EM organizations with site operations responsibilities for safe and efficient management of the current and future inventory of DOE SNF and preparation of the SNF for disposal. The EM-21 office performs the following functions specifically related to the NSNFP:

- Develops and helps to implement policies, strategies, and programs for management of DOE SNF for interim storage, treatment, and eventual transportation to a geologic repository

- Coordinates DOE SNF program activities with other DOE elements; including Operations Offices; Defense Programs; Environment, Safety, and Health; Materials Disposition; Nuclear Energy, Science, and Technology; and Arms Control and Nonproliferation
- Coordinates with the OCRWM, as necessary, on behalf of the NSNFP, DOE-HQ Program Offices, and Operations Offices on issues and activities related to the acceptance of DOE SNF for repository disposal
- Provides liaison with national regulatory agencies and review bodies such as the NRC, National Academy of Sciences, and Nuclear Waste Technical Review Board on issues directly related to DOE SNF
- Provides technical assistance to senior management in dealing with day-to-day issues on SNF, in particular, responding to action items and inquiries from throughout DOE, Congress, and national organizations.

4. NSNFP INTERFACES

NSNFP interfaces with a number of key participants to perform the DOE SNF mission. Each participant provides an important function in the success of the NSNFP mission and the ultimate disposition of DOE SNF. Figure 2 illustrates the primary NSNFP interfaces.

The primary interface for the disposition of DOE SNF occurs through the *Memorandum of Agreement for Acceptance of Department of Energy Spent Nuclear Fuel and High-Level Radioactive Waste*. This document defines this interface along with the responsibilities of EM and OCRWM with regard to SNF. The MOA establishes the terms and conditions under which OCRWM will make available disposal services to EM for all DOE SNF and high-level waste. The MOA was established between two main offices of DOE, the Office of Environmental Management (EM-1) and the Office of Civilian Radioactive Waste Management (RW-1).

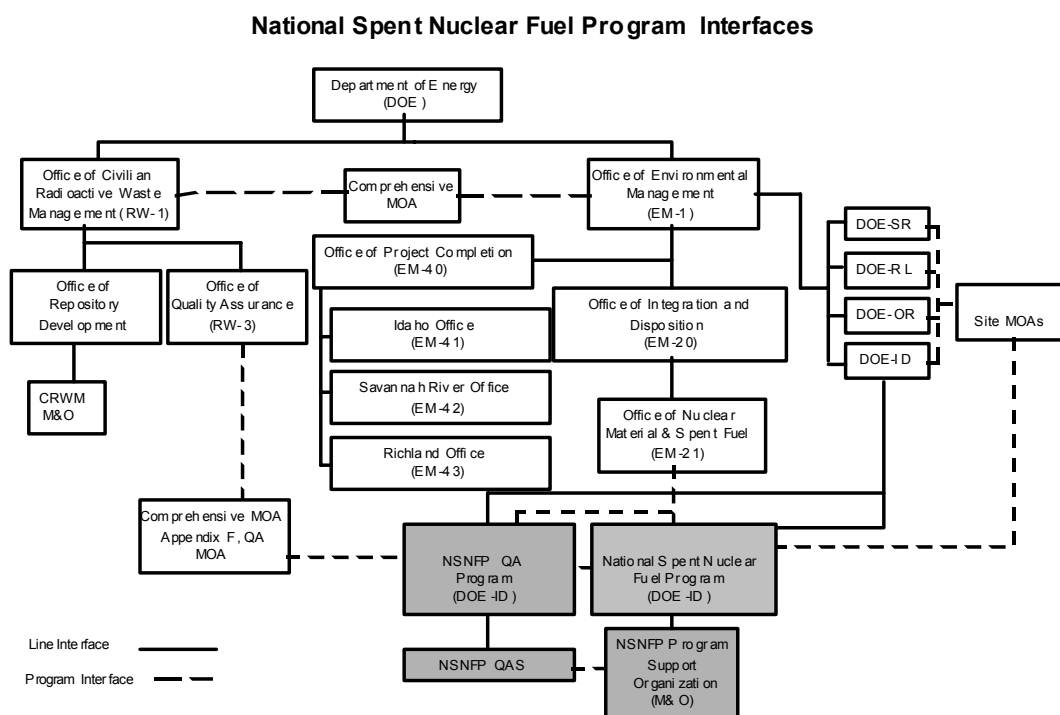


Figure 2. NSNFP interfaces.

4.1 NSNFP and Supporting Organizations

4.1.1 NSNFP

The DOE-ID NSNFP Manager interfaces with several organizations to effectively achieve its mission. The NSNFP defines its responsibilities and authorities through a technical interface with Office of Nuclear Material and Spent Fuel (EM-21) and direct line management interface with DOE-ID. NSNFP also plans and negotiates budget allocation through DOE-ID. The NSNFP provides functional direction to the NSNFP Program Support Organization through formal detailed work planning, and it provides guidance to all DOE SNF sites for technical matters related to repository acceptance.

In addition, the NSNFP interfaces with the Office of Repository Development regarding matters related to the terms and conditions listed in the MOA mentioned above and all matters related to DOE SNF inclusion in the repository. The NSNFP QAPP defines the interfaces of the DOE-ID NSNFP Manager for quality-related matters.

4.1.2 NSNFP Program Support Office

The NSNFP Program Support Office supports the DOE-ID NSNFP Manager by implementing work scope defined through the Detailed Work Plan. The Work Breakdown Structure (WBS) of the Detailed Work Plan is described in Section 5 of this document. The NSNFP Program Support Office performs support tasks that contribute to the objectives of the NSNFP and interfaces directly with the DOE-ID NSNFP Manager through DOE-ID. The NSNFP Program Support Office interfaces with the Office of Repository Development, the Civilian Radioactive Waste Management Management and Operations (M&O), and OCRWM on technical matters related to the acceptance of DOE SNF as agreed to with the DOE-ID NSNFP Manager.

The NSNFP Program Support Office also interfaces with the DOE SNF sites on technical matters regarding SNF characterization, packaging, storage, and shipment. Issues are addressed through semiannual meetings, weekly conference calls, and topical meetings and calls. Interfaces related to quality matters are defined in detail in the NSNFP QAPP.

4.1.3 NSNFP Quality Assurance Program

The OCRWM Director of Quality Assurance (RW-3) delegates authority to the NSNFP QAPM to execute the QA function as described in Section 1.2.2 of the *Quality Assurance Requirements and Description* (QARD), DOE/RW-0333P⁷ via a QA MOA. The manager of the NSNFP QA Program reports to the Manager, NSNFP and coordinates with the EM-21 Spent Fuel Team Lead on matters relating DOE SNF site QA programs. Refer to Section 6 for additional details.

The NSNFP QAPM communicates with senior management positions within the NSNFP, DOE-ID, and the EM-21 Representative. The NSNFP QAPM interfaces with OCRWM Office of Quality Assurance and interprets and approves QA program requirements. The NSNFP QA Program establishes interfaces with the DOE sites through MOAs to provide QA program reviews and acceptance of DOE SNF sites. In addition, the NSNFP QA Program interfaces with the NSNFP through program assessment and program oversight. Detailed interfaces related to QA are defined in the NSNFP QAPP.

4.1.4 NSNFP Quality Assurance Staff

The NSNFP QAS supports the DOE-ID NSNFP QA Manager by implementing work scope defined through the Detailed Work Plan. The WBS of the Detailed Work Plan is described in Section 5 of this document. The NSNFP QAS interfaces directly with the DOE-ID NSNFP QA Manager and performs support tasks that ensure the NSNFP QA objectives are maintained. The QAS interfaces with OCRWM QA on matters related to the acceptance and implementation of NSNFP and DOE SNF QA Programs, as agreed to with the DOE-ID NSNFP QA Manager.

The NSNFP QAS also interfaces with the DOE SNF sites related to the implementation and maintenance of the respective QA programs. The NSNFP QAS addresses issues using quarterly reports, semiannual meetings, weekly conference calls, and QA working group meetings and calls. Interfaces related to quality matters are defined in detail in the NSNFP QAPP.

4.2 Office of Environmental Management

The Assistant Secretary for EM assigned the responsibilities for the NSNFP to the Office of Nuclear Material and Spent Fuel (EM-21) which reports directly to the Deputy Assistant Secretary of Integration and Disposition (EM-20).

The Assistant Secretary for EM also has the authority over the site field offices responsible for final disposition of the SNF. The Office of Project Completion (EM-40) is responsible for funding the NSNFP. The NSNFP interfaces with EM-40 by providing budget request documentation. EM-40 allocates its funding authorization to DOE-ID based on the priority of the work defined in the budget request documents.

4.3 Office of Civilian Radioactive Waste Management

The Director of OCRWM assigns to the Deputy Director, Office of Repository Development, the responsibility of determining if Yucca Mountain, Nevada, is a suitable site for an SNF and high-level radioactive waste repository.

4.3.1 Office of Repository Development

The manager of the Office of Repository Development is delegated the responsibility of licensing, design, and construction of the federal geological SNF and high-level radioactive waste repository. The Deputy Director, Office of Repository Development, directly interfaces with the Manager, NSNFP DOE-ID with regard to the terms and conditions listed in the EM/RW MOA.

4.3.2 Office of Quality Assurance (RW-3)

The Director of the Office of Quality Assurance (RW-3) oversees the implementation of the QARD, DOE/RW-0333P by the National SNF QA Program.

4.4 DOE SNF Field Offices

Four DOE field offices and their contractors interface with the NSNFP on matters of coordination and integration of DOE SNF activities. The field offices/sites include the Savannah River Site, the Hanford Site, the Oak Ridge National Laboratory, and the INEEL. Site contractors implement the actions that result from the coordination activities. Interfaces with the NSNFP specifically address:

- Coordinating and establishing DOE sites' SNF disposal effort using an integrated shipping schedule
- Identifying and addressing national DOE SNF issues such as characterization and packaging of SNF
- Establishing successful SNF disposal strategies.

The DOE SNF operating programs interface with the NSNFP QA Program via individual MOAs. The MOAs document the coordination of the NSNFP including the NSNFP QA Program with each of the sites. The MOAs also address the flow-down of technical requirements to the DOE operating sites and the implementation of those technical requirements.

4.5 External Interfaces

In addition to the external interfaces already discussed above, the NSNFP interfaces with numerous organizations external to the DOE SNF Program to ensure successful completion of the NSNFP mission and to establish opportunities to apply SNF solutions to address other waste issues.

4.5.1 Other Federal Agencies

The NSNFP interfaces with the NRC on matters related to the licensing and certification of the DOE SNF transportation cask system and the standardized DOE SNF canister. Early interfaces with the NRC help the NSNFP to fully understand licensing requirements and fully address those requirements. In addition, the NSNFP supports OCRWM as it interfaces with the NRC for repository licensing and certification. This support to OCRWM provides the means to ensure DOE SNF is fully incorporated in the license application documents.

4.5.2 Industrial Standards Organizations

The NSNFP has people participating on committees for both the American Society of Mechanical Engineers and the American Society for Testing and Materials. Through these committee members, the NSNFP is applying SNF expertise to address national issues while working to ensure these standards address the material science and canister needs of the program.

4.5.3 Other DOE National and Waste Programs

The NSNFP has established interfaces with other waste and national programs to find integrated solutions to the common needs of these programs. The EM SNF programs have many overlapping issues with its high-level waste program activities. Interfaces are being established between these two programs to share solutions and find efficient ways to address their common issues.

5. SUMMARY WORK SCOPE

5.1 Work Breakdown Structure

Figure 3 is the NSNFP Project WBS, a product-oriented hierarchy of the work and products.

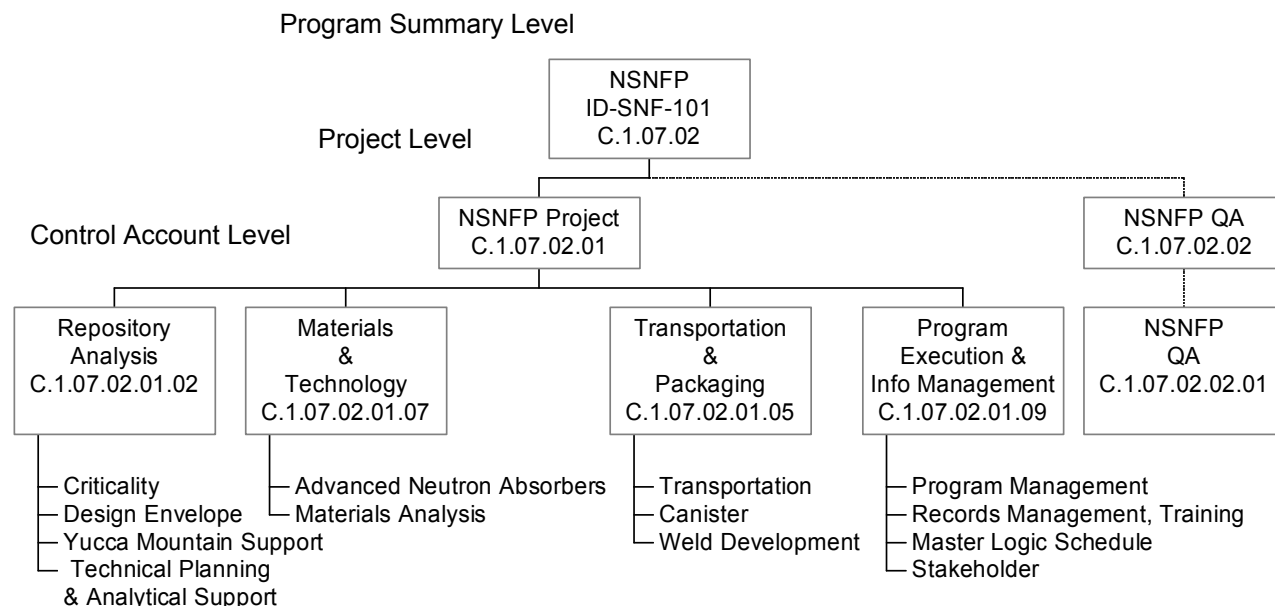


Figure 3. NSNFP work breakdown structure.

5.2 Work Breakdown Structure Dictionary

This section provides a brief description of each of the elements defined in the WBSs. A summary of the Fiscal Year 2003 Detailed Work Plan Budget, schedule, and milestones is provided in Appendix A of this document.

5.2.1 Project Baseline Summary Level

C.1.07.02—National SNF Program—The NSNFP defines and ensures resolution of all associated issues for the characterization, safe interim storage, and proper final disposition of all DOE SNF. With the DOE SNF sites, OCRWM, and its M&O contractor, the NSNFP plans, integrates, and executes the analysis and activities required to safely prepare DOE SNF for interim storage and its ultimate transfer for final disposal in the proposed monitored geologic repository. In addition, a quality program that is compliant with the QARD provides QA oversight of the NSNFP and DOE SNF sites.

5.2.2 Project Level

C.1.07.02.01—National Spent Nuclear Fuel Program—The NSNFP performs all NSNFP functions described at the Project Baseline Summary Level excluding the QA oversight functions.

C.1.07.02.02—NSNFP QA Program—Performs the QA oversight functions listed in the Project Baseline Summary Level definition.

5.2.3 Control Account Level

C.1.07.02.01.02—Repository Analysis—Works with the DOE SNF sites, OCRWM, and its M&O contractor to provide the planning and integration needed to execute and conduct the necessary repository analyses and chemical reactivity evaluations of uranium metal SNF.

These activities are required to support the final disposal of DOE SNF in the proposed monitored geologic repository.

C.1.07.02.01.07—Materials and Technology—Provides the engineering and technical development in support of the NSNFP goals. This element includes materials analysis, drying standards, advanced neutron absorbers, and SNF release rate studies.

C.1.07.02.01.05—Transportation and Packaging—The NSNFP in accordance with the MOA between EM and RW provides a standardized canister conceptual design for the packaging, interim storage, shipment, and disposal of SNF. This includes development of the loading requirements, standardization of internal components, closure methods and requirements, and inspection methods and requirements. Testing is performed to ensure validation of codes and compliance with established requirements. Developments affecting the design, loading, and handling aspects are communicated to user organizations. This effort will also coordinate EM transportation requirements with RW transportation procurement activities.

C.1.07.02.01.PM—Program Execution and Information Management—Provides the management direction and integration of the NSNFP. It ensures that the NSNFP mission is documented in an orderly and structured fashion, that current program-controlling documents and information are available for use by program personnel, and ensures that program activities are guided by implementing procedures. It provides QA staff support for the quality-affecting activities performed by the NSNFP and ensures that those activities are performed in accordance with the NSNFP QA Manual. It also provides NSNFP with a Master Logic Schedule describing the interfaces and key milestones among NSNFP, the DOE sites, and OCRWM. The Program Execution ensures that the NSNFP provides effective liaison with stakeholders.

C.1.07.02.02.01—NSNFP QA—Provides for trained and qualified QA staff to support the U.S. Department of Energy (DOE) NSNFP QAPM. It provides support to develop and maintain the National SNF QA Program and provide QA oversight of the DOE NSNFP organization and the DOE SNF sites. It also provides the QAS to support the quality-affecting activities performed by the NSNFP technical staff and ensures that those activities are performed in accordance with the NSNFP QA Manual and the OCRWM QARD (see Reference 7).

6. QUALITY ASSURANCE

The NSNFP QAPP describes the NSNFP QA policy, the NSNFP organization structure, the internal and external QA interfaces, the general QA program principles applicable to the scope for the NSNFP mission, and the roles and responsibilities of the NSNFP with respect to QA. The NSNFP adopts QARD principles for engineering and design-related activities intended to guide the development of a path forward for successful disposition of DOE SNF. Work performed by the NSNFP that will be relied on to develop design requirements and to demonstrate DOE SNF compliance with repository acceptance requirements is subject to the QARD. In accordance with QARD 1.3.3, the NSNFP implements QA requirements by complying with NSNFP implementing procedures.

6.1 Policy Statement

The NSNFP policy is to institute, implement, and maintain an effective QA program in all aspects of its work that may affect the safety and protection of workers, the public, or the environment. The NSNFP QA Program has been developed with these objectives in mind as defined in the QAPP.

6.2 DOE NSNFP Quality Assurance Program Management

Through Appendix F of the Comprehensive Memorandum of Agreement between EM and RW (see Reference 2), the NSNFP QAPM has responsibility for coordinating the development, implementation, and maintenance of the NSNFP QA Program and verifying qualification of the QA Programs of the DOE SNF sites.

The NSNFP QAPM interfaces with the OCRWM OQA to obtain clarification and interpretation of OCRWM QA requirements, resolve QA program issues relative to OCRWM requirements, and provides final interpretation of OCRWM QA requirements within the NSNFP and for the DOE SNF sites.

7. REFERENCES

1. DOE (U.S. Department of Energy), *DOE-Owned Spent Nuclear Fuel Strategic Plan*, Revision 1, Office of Environmental Management, Washington, D.C., September 1996.
2. DOE, *Memorandum of Agreement for Acceptance of Department of Energy Spent Nuclear Fuel and High-Level Radioactive Waste*, Revision 1, between the Assistant Secretary for DOE-EM, Washington, D.C., and the Director of DOE-RW, Washington, D.C., January 1999.
3. DOE, Action Memorandum to Approve Transfer of Responsibility of the Design, NRC Certification, and Fabrication of the Transportation Cask System, July 2002.
4. DOE, *Department of Energy's Record of Decisions for Programmatic Spent Nuclear Fuel and Idaho National Engineering Laboratory, Environmental Restoration and Waste Management Programs*, as amended, March 1996.
5. DOE, Consent Order (PSC 1995) for spent nuclear fuel among the State of Idaho, the U.S. Navy, and the U.S. Department of Energy, October 1995.
6. DOE, *Life Cycle Asset Management*, DOE O 430.1A, October 14, 1998.
7. DOE, *Quality Assurance Requirements and Description*, Revision 10, Office of Civilian Radioactive Waste Management DOE/RW-0333P, April 28, 2000.

Appendix A

FY 2003 Detailed Work Plan Summary

Appendix A

FY 2003 Detailed Work Plan Summary

The following pages provide a summary of the National Spent Nuclear Fuel Program Detailed Work Plan for Fiscal Year 2003. Included are the Project Plan Budget Reports, summary schedules, and milestones. The Detailed Work Plan is a living document with changes documented through a formal change control process. One major change of the Detailed Work Plan occurs annually and is approved in September for the following fiscal year.

Program:C10702

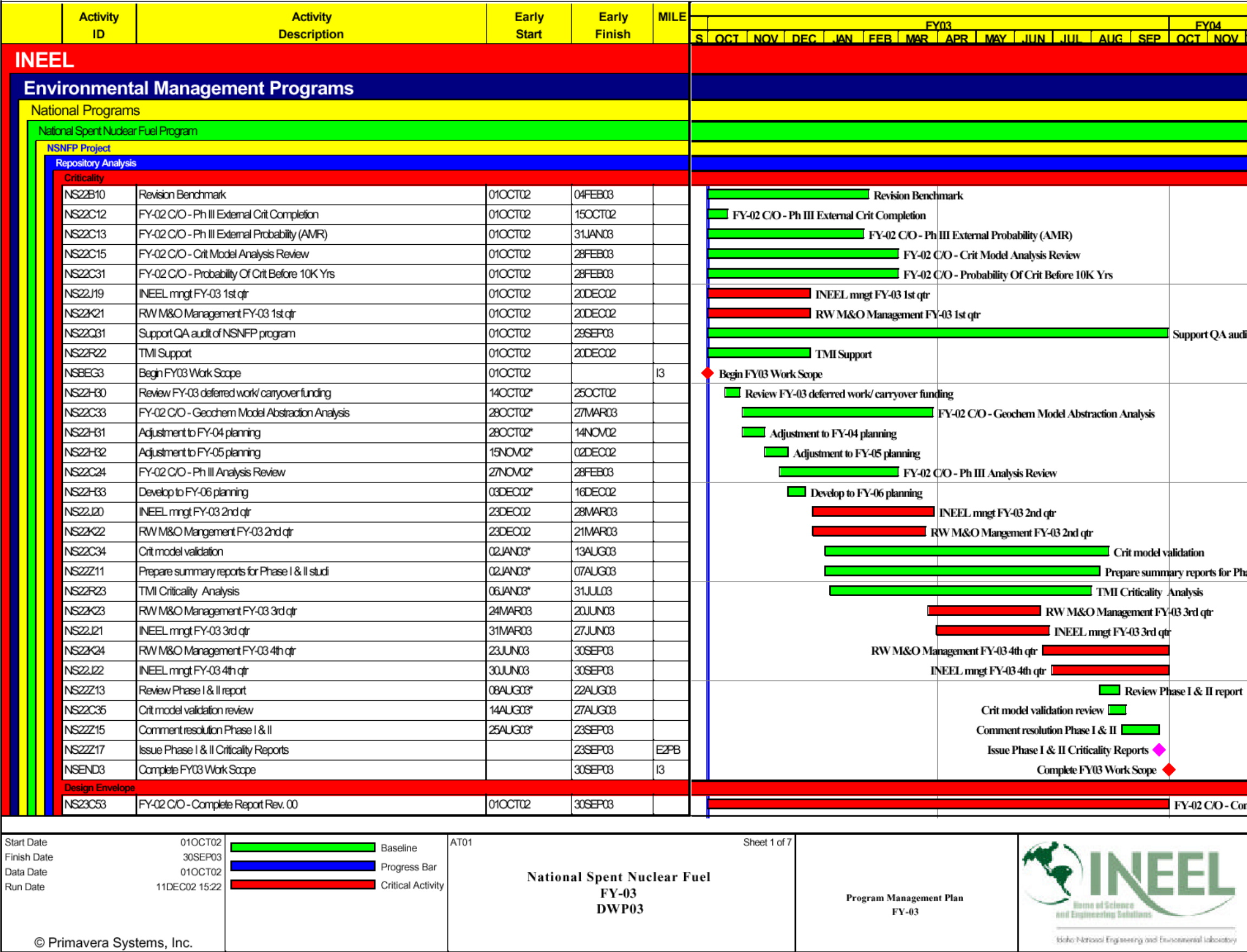
Report:CAP

Program: C10702			Description: NATIONAL SPENT NUCLEAR FUEL PROGRAM				Approval: Program Manager Functional Manager Cost Account Manager														
Run Date: 12/11/2002			Status Date: 11/17/2002																		
WBS[4] WBS[5] WBS[6] OCT 2002 NOV 2002 DEC 2002 JAN 2003 FEB 2003 MAR 2003 APR 2003 MAY 2003 JUN 2003 JUL 2003 AUG 2003 SEP 2003 SEP 2004 SEP 2005 Cumulative																					
C.1.07.02 National Spent Nuclear Fuel Program																					
C.1.07.02.01 NSNFP Project																					
			C.1.07.02.01.02 Repository Analysis	BCWS	330,469	280,253	443,964	373,709	389,735	339,867	300,376	357,585	271,737	267,654	338,068	313,906	0	0 4,007,323			
			C.1.07.02.01.05 Transportation and Packaging	BCWS	117,108	89,220	146,617	111,135	91,490	77,094	82,465	116,641	99,613	77,550	124,202	99,065	0	0 1,232,199			
			C.1.07.02.01.07 Materials and Technology	BCWS	92,792	73,257	112,327	89,330	93,603	87,001	86,973	108,817	82,701	82,701	108,817	108,919	0	0 1,127,237			
			C.1.07.02.01.09 NSNFP Execution & Information Management	BCWS	63,077	49,797	76,621	62,999	54,985	55,194	59,975	88,427	72,501	61,935	81,015	62,003	0	0 788,530			
			WBS[5] Totals:	BCWS	603,446	492,527	779,528	637,173	629,813	559,156	529,789	671,470	526,551	489,840	652,103	583,894	0	0 7,155,290			
C.1.07.02.02 National SNF QA																					
			C.1.07.02.02.01 NSNFP QA Program	BCWS	60,398	54,100	76,428	41,909	48,285	50,772	67,384	80,483	77,819	69,926	96,969	74,798	0	0 799,272			
			WBS[5] Totals:	BCWS	60,398	54,100	76,428	41,909	48,285	50,772	67,384	80,483	77,819	69,926	96,969	74,798	0	0 799,272			
C.1.07.02.03 Technology Development																					
			C.1.07.02.03.02 Weld Development	BCWS	2,147	1,695	2,599	2,147	565	0	0	0	0	0	0	0	0	0 9,154			
			WBS[5] Totals:	BCWS	2,147	1,695	2,599	2,147	565	0	0	0	0	0	0	0	0	0 9,154			
WBS[4] Totals:				BCWS	665,991	548,322	858,556	681,229	678,662	609,928	597,173	751,954	604,370	559,766	749,072	658,692	0	0 7,963,715			
Grand Totals:				BCWS	665,991	548,322	858,556	681,229	678,662	609,928	597,173	751,954	604,370	559,766	749,072	658,692	0	0 7,963,715			

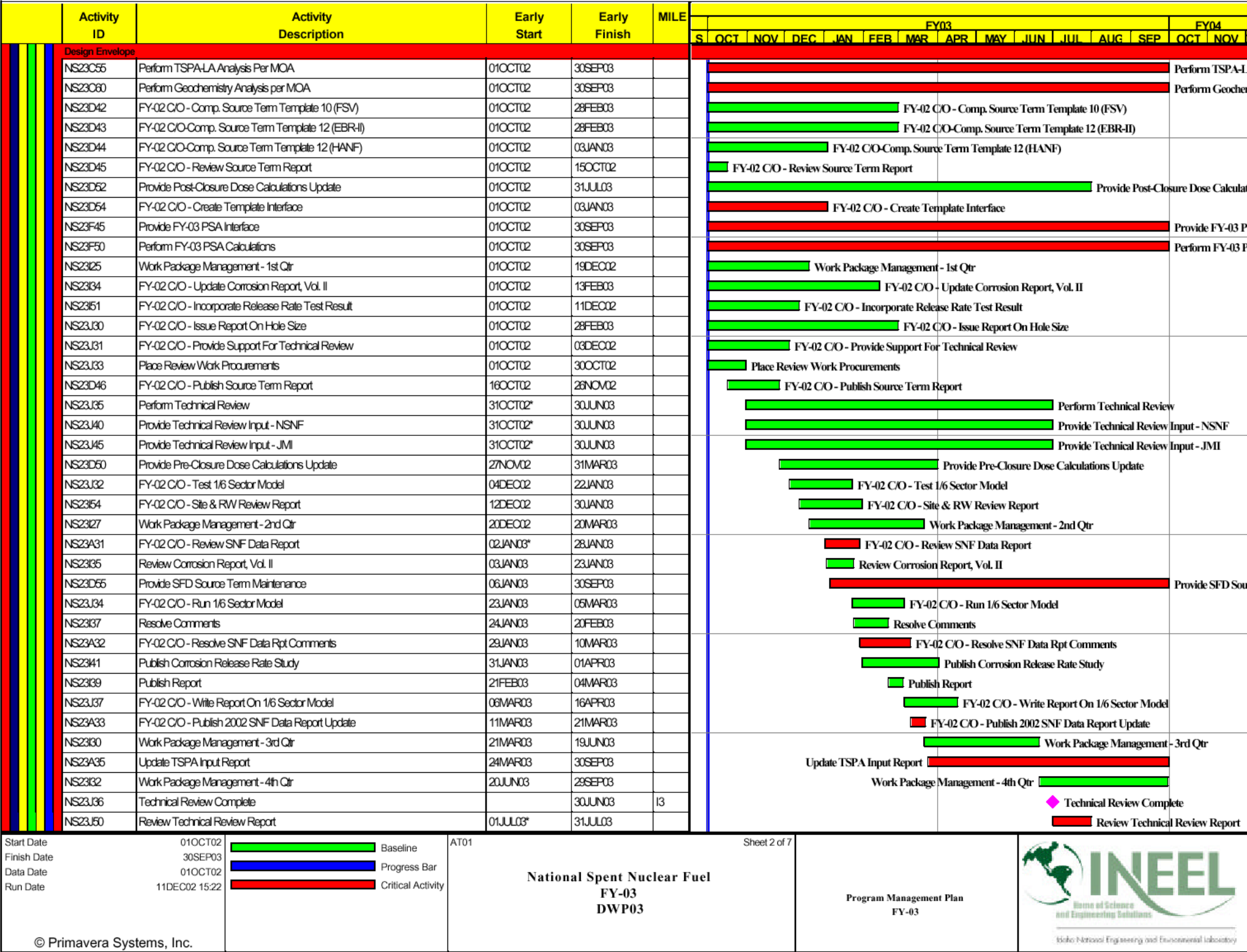
Program:C10702


Report:CAP

Program: C10702		Description: NATIONAL SPENT NUCLEAR FUEL PROGRAM		Approval: Program Manager Functional Manager Cost Account Manager															
Run Date: 12/11/2002		Status Date: 11/17/2002																	
WBS[4]	WBS[5]	WBS[6]	BE[2]		OCT 2002	NOV 2002	DEC 2002	JAN 2003	FEB 2003	MAR 2003	APR 2003	MAY 2003	JUN 2003	JUL 2003	AUG 2003	SEP 2003	SEP 2004	SEP 2005	Cumulative
C.1.07.02 National Spent Nuclear Fuel Program																			
C.1.07.02.01 NSNFP Project																			
C.1.07.02.01.02 Repository Analysis																			
		L Labor	BCWS		198,286	163,020	257,410	193,896	214,852	188,732	175,929	209,027	158,842	163,652	221,209	203,067	0	0	2,347,922
		M Material Purchases	BCWS		99,319	91,414	156,628	161,759	154,734	125,974	101,830	122,169	92,844	87,096	94,794	87,447	0	0	1,376,009
		N Other Non-Labor	BCWS		3,893	4,100	4,395	2,747	4,036	9,055	6,615	6,386	4,854	4,832	8,011	9,268	0	0	68,191
		S Sub Contracts	BCWS		23,997	17,793	19,514	10,507	11,060	11,060	11,060	13,825	10,507	7,495	8,032	8,032	0	0	152,881
		T Travel	BCWS		4,973	3,926	6,017	4,799	5,052	5,047	4,942	6,178	4,690	4,580	6,022	6,093	0	0	62,321
		WBS[6] Totals:	BCWS		330,469	280,253	443,964	373,709	389,735	339,867	300,376	357,585	271,737	267,654	338,068	313,906	0	0	4,007,323
C.1.07.02.01.05 Transportation and Packaging																			
		L Labor	BCWS		99,357	75,206	128,544	98,019	80,786	68,310	74,503	106,690	92,049	69,986	114,251	89,044	0	0	1,096,744
		M Material Purchases	BCWS		8,261	6,522	6,584	3,625	3,556	1,636	813	1,017	773	773	1,017	1,057	0	0	35,632
		N Other Non-Labor	BCWS		2,700	2,132	3,268	2,700	0	0	0	0	0	0	0	0	0	0	10,800
		S Sub Contracts	BCWS		4,139	3,268	5,011	4,139	4,357	4,357	4,357	5,446	4,139	4,139	5,446	5,446	0	0	54,247
		T Travel	BCWS		2,651	2,093	3,210	2,651	2,791	2,791	2,791	3,489	2,651	2,651	3,489	3,517	0	0	34,776
		WBS[6] Totals:	BCWS		117,108	89,220	146,617	111,135	91,490	77,094	82,465	116,641	99,613	77,550	124,202	99,065	0	0	1,232,199
C.1.07.02.01.07 Materials and Technology																			
		L Labor	BCWS		43,192	34,099	52,285	40,816	42,670	42,670	44,843	56,154	42,677	42,677	56,154	56,257	0	0	554,495
		M Material Purchases	BCWS		37,576	29,665	45,487	36,491	38,277	31,675	29,474	36,842	28,000	28,000	36,842	36,842	0	0	415,173
		N Other Non-Labor	BCWS		948	748	1,147	948	998	998	998	1,247	948	948	1,247	1,247	0	0	12,420
		S Sub Contracts	BCWS		9,538	7,530	11,546	9,538	10,040	10,040	10,040	12,550	9,538	9,538	12,550	12,550	0	0	125,000
		T Travel	BCWS		1,538	1,214	1,861	1,538	1,618	1,618	1,618	2,023	1,538	1,538	2,023	2,023	0	0	20,149
		WBS[6] Totals:	BCWS		92,792	73,257	112,327	89,330	93,603	87,001	86,973	108,817	82,701	82,701	108,817	108,919	0	0	1,127,237
C.1.07.02.01.09 NSNFP Execution & Information Management																			
		L Labor	BCWS		44,504	35,135	53,757	40,153	31,353	31,639	36,642	55,611	47,432	38,852	53,769	39,603	0	0	508,448
		M Material Purchases	BCWS		5,296	4,181	6,409	1,910	1,595	1,576	1,466	5,593	4,923	4,806	2,376	1,364	0	0	41,495
		N Other Non-Labor	BCWS		5,290	4,176	6,399	5,599	5,894	5,833	5,130	6,301	4,657	4,599	6,872	5,918	0	0	66,668
		S Sub Contracts	BCWS		2,719	2,147	3,684	10,161	10,696	10,722	10,867	13,584	10,098	9,465	12,454	10,461	0	0	107,058
		T Travel	BCWS		5,267	4,158	6,371	5,175	5,447	5,425	5,871	7,338	5,391	4,214	5,545	4,658	0	0	64,860
		WBS[6] Totals:	BCWS		63,077	49,797	76,621	62,999	54,985	55,194	59,975	88,427	72,501	61,935	81,015	62,003	0	0	788,530
		WBS[5] Totals:	BCWS		603,446	492,527	779,528	637,173	629,813	559,156	529,789	671,470	526,551	489,840	652,103	583,894	0	0	7,155,290
C.1.07.02.02 National SNF QA																			
C.1.07.02.02.01 NSNFP QA Program																			
		L Labor	BCWS		55,165	50,157	71,649	40,011	45,822	47,481	63,238	77,818	75,104	66,944	93,046	72,469	0	0	758,907
		M Material Purchases	BCWS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		N Other Non-Labor	BCWS		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		T Travel	BCWS		5,233	3,943	4,779	1,898	2,462	3,290	4,146	2,666	2,714	2,982	3,923	2,328	0	0	40,365
		WBS[6] Totals:	BCWS		60,398	54,100	76,428	41,909	48,285	50,772	67,384	80,483	77,819	69,926	96,969	74,798	0	0	799,272
		WBS[5] Totals:	BCWS		60,398	54,100	76,428	41,909	48,285	50,772	67,384	80,483	77,819	69,926	96,969	74,798	0	0	799,272
C.1.07.02.03 Technology Development																			
C.1.07.02.03.02 Weld Development																			
		S Sub Contracts	BCWS		2,147	1,695	2,599	2,147	565	0	0	0	0	0	0	0	0	0	9,154
		WBS[6] Totals:	BCWS		2,147	1,695	2,599	2,147	565	0	0	0	0	0	0	0	0	0	9,154
		WBS[5] Totals:	BCWS		2,147	1,695	2,599	2,147	565	0	0	0	0	0	0	0	0	0	9,154
WBS[4] Totals:																			
Grand Totals:																			
		BCWS			665,991	548,322	858,556	681,229	678,662	609,928	597,173	751,954	604,370	559,766	749,072	658,692	0	0	7,963,715




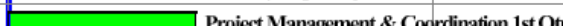




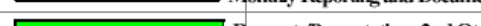


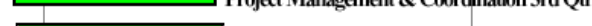











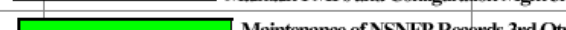














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	Activity ID	Activity Description	Early Start	Early Finish	MILE	FY03												FY04		
						S	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
Design Envelope																				
	NS23J55	Disposition Technical Review Recommendations	01AUG03	30SEP03		Disposition Technical Review Recommendations														
	NS23D56	Complete Source Term Report		30SEP03	E2PB	Complete Source Term Report														
	NS23F51	Complete DBE Report		30SEP03	E2PB	Complete DBE Report														
YM Support																				
	NS25A10	Travel for Interface w/ Off-Site Activities	01OCT02	30SEP03		Travel for Interf														
	NS25C05	Manage OCRWM M&O Activities Supporting DOE SNF O	01OCT02	20DEC02		Manage OCRWM M&O Activities Supporting DOE SNF O														
	NS25D04	FY-02 C/O - Review Modeling Activities & Results	01OCT02	24DEC02		FY-02 C/O - Review Modeling Activities & Results														
	NS25A06	Interface w/ Off-Site Activities Affecting NSN	04NOV02*	20DEC02		Interface w/ Off-Site Activities Affecting NSN														
	NS25D03	Complete ICD Update	15NOV02*	29SEP03		Complete ICD Up														
	NS25A07	Interface w/ Off-Site Activities Affecting NSN	23DEC02	21MAR03		Interface w/ Off-Site Activities Affecting NSN														
	NS25C06	Manage OCRWM M&O Activities Supporting DOE SNF -	23DEC02	21MAR03		Manage OCRWM M&O Activities Supporting DOE SNF -														
	NS25A08	Interface w/ Off-Site Activities Affecting NSN	24MAR03	20JUN03		Interface w/ Off-Site Activities Affecting NSN														
	NS25C07	Manage OCRWM M&O Activities Supporting DOE SNF A	24MAR03	20JUN03		Manage OCRWM M&O Activities Supporting														
	NS25A09	Interface w/ Off-Site Activities Affecting NSN	23JUN03	30SEP03		Interface w/ Off-Site Activities Affecting NSN														
	NS25C08	Manage OCRWM M&O Activities Supporting DOE SNF A	23JUN03	30SEP03		Manage OCRWM M&O Activities Supporting DOE SNF A														
Technical Planning & Analytical Support																				
	NS27A31	Provide program support - 03	01OCT02	29SEP03		Provide program														
	NS27B30	FY-02 C/O - Spport Licensing & Cert-LA 03	01OCT02	24OCT02		FY-02 C/O - Spport Licensing & Cert-LA 03														
	NS27B31	Support Licensing & Certification-LA 03	01OCT02	29SEP03		Support Licensing														
	NS27C30	FY-02 C/O Sandia - S&S Licensing strategy-SR 03	01OCT02	29SEP03		FY-02 C/O Sandi														
	NS27C31	Develop S&S licensing strategy to supt SR 03	01OCT02	29SEP03		Develop S&S lice														
	NS27D31	Respond to Questions about DOE owned SNF 03	01OCT02	29SEP03		Respond to Quest														
	NS27D35	Update & Maintain Database 03	01OCT02	29SEP03		Update & Mainta														
	NS27F31	Maintain & update SFD Software 03	01OCT02	29SEP03		Maintain & upda														
	NS27G31	Support data development & review 03	01OCT02	29SEP03		Support data dev														
Transportation and Packaging																				
Canister Basket																				
	NS25D10	Determination of Foster Wheeler Mods	01OCT02	25OCT02		Determination of Foster Wheeler Mods														
	NS52A10	Canister Project Support	01OCT02	29SEP03		Canister Project :														
	NS52A19	FY-02 C/O - ISU Drop Pad Contract	01OCT02	29SEP03		FY-02 C/O - ISU														
	NS52A20	Canister Computer Support	01OCT02	29SEP03		Canister Comput														
	NS52C10	Design/Fab Material Test Device	01OCT02	03MAR03		Design/Fab Material Test Device														
	NS52C15	Software V&V	01OCT02	02JAN03		Software V&V														
	NS52C20	Prelim. MCO Repository Drop Analysis	01OCT02	30JAN03		Prelim. MCO Repository Drop Analysis														
	NS52C65	Develop Full-Scale Model	01OCT02	02DEC02		Develop Full-Scale Model														
	NS25D20	Computer Analyses - 10 CFR Part 1.73(c)	18NOV02*	21MAR03		Computer Analyses - 10 CFR Part 1.73(c)														
	NS52C70	Determ. Repos. Drop Response for 18-Inch	03DEC02*	07JAN03		Determ. Repos. Drop Response for 18-Inch														
	NS52C75	Determine Worst Impact Angle	16DEC02*	17FEB03		Determine Worst Impact Angle														
	NS52C80	Determine 10 CFR 71 Drop Responses (Like 18-Inch	03FEB03*	28MAR03		Determine 10 CFR 71 Drop Responses (Like 18-Inch														
	NS52C85	Determine Repository Drop Responses	03MAR03*	25APR03		Determine Repository Drop Responses														
Start Date		01OCT02	Baseline		AT01	Sheet 3 of 7														
Finish Date		30SEP03	Progress Bar																	
Data Date		01OCT02	Critical Activity																	
Run Date		11DEC02 15:22																		
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	Activity ID	Activity Description	Early Start	Early Finish	MILE	FY03												FY04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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NS25D30	Computer Analyses - Repository Drops	24MAR03	20JUN03																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

Activity ID		Activity Description		Early Start	Early Finish	MILE	FY03												FY04			
							S	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
Project Management																						
NSM1A13	Strategic Planning Meeting #1			01OCT02	24DEC02		 Strategic Planning Meeting #1															
NSM1A15	NRC Meeting Coordination			01OCT02	30SEP03																NRC Meeting C	
NSM1B05	Monthly Reporting and Documentation 1st Qtr			01OCT02	20DEC02		 Monthly Reporting and Documentation 1st Qtr															
NSM1C05	Project Management & Coordination 1st Qtr			01OCT02	19DEC02		 Project Management & Coordination 1st Qtr															
NSM1C09	Requests/Presentations 1st Qtr			01OCT02	20DEC02		 Requests/Presentations 1st Qtr															
NSM1C14	MOP Program Management FY03			01OCT02	30SEP03																MOP Program M	
NSM1C06	Project Management & Coordination 2nd Qtr			20DEC02	18MAR03		 Project Management & Coordination 2nd Qtr															
NSM1B06	Monthly Reporting and Documentation 2nd Qtr			23DEC02	19MAR03		 Monthly Reporting and Documentation 2nd Qtr															
NSM1C10	Requests/Presentations 2nd Qtr			23DEC02	21MAR03		 Requests/Presentations 2nd Qtr															
NSM1A11	Issue Updated NSNFP Project Plan			03JAN03*	16JAN03		 Issue Updated NSNFP Project Plan															
NSM1C07	Project Management & Coordination 3rd Qtr			19MAR03	13JUN03		 Project Management & Coordination 3rd Qtr															
NSM1B07	Monthly Reporting and Documentation 3rd Qtr			20MAR03	16JUN03		 Monthly Reporting and Documentation 3rd Qtr															
NSM1C11	Requests/Presentations 3rd Qtr			24MAR03	20JUN03		 Requests/Presentations 3rd Qtr															
NSM1A14	Strategic Planning Meeting #2			28APR03*	24JUL03		 Strategic Planning Meeting #2															
NSM1C19	Work Pkg Development			15MAY03*	30SEP03		 Work Pkg Development															
NSM1C08	Project Management & Coordination 4th Qtr			16JUN03	23SEP03		 Project Management & Coordination 4th Qtr															
NSM1B08	Monthly Reporting and Documentation 4th Qtr			17JUN03	23SEP03		 Monthly Reporting and Documentation 4th Qtr															
NSM1C12	Requests/Presentations 4th Qtr			23JUN03	29SEP03		 Requests/Presentations 4th Qtr															
Records Management & Training																						
NSM2A05	Maintenance of NSNFP Records 1st Qtr			01OCT02	19DEC02		 Maintenance of NSNFP Records 1st Qtr															
NSM2B05	Maintain PMPs and Configuration Mgm 1st Qtr			01OCT02	19DEC02		 Maintain PMPs and Configuration Mgm 1st Qtr															
NSM2A06	Maintenance of NSNFP Records 2nd Qtr			20DEC02	20MAR03		 Maintenance of NSNFP Records 2nd Qtr															
NSM2B06	Maintain PMPs and Configuration Mgm 2nd Qtr			20DEC02	18MAR03		 Maintain PMPs and Configuration Mgm 2nd Qtr															
NSM2B07	Maintain PMPs and Configuration Mgm 3rd Qtr			19MAR03	13JUN03		 Maintain PMPs and Configuration Mgm 3rd Qtr															
NSM2A07	Maintenance of NSNFP Records 3rd Qtr			21MAR03	19JUN03		 Maintenance of NSNFP Records 3rd Qtr															
NSM2B08	Maintain PMPs and Configuration Mgm 4th Qtr			16JUN03	22SEP03		 Maintain PMPs and Configuration Mgm 4th Qtr															
NSM2A08	Maintenance of NSNFP Records 4th Qtr			20JUN03	26SEP03		 Maintenance of NSNFP Records 4th Qtr															
Master Logic Schedule																						
NSM4C30	Maintain Integrated Shipping Schedule			01OCT02	24DEC02		 Maintain Integrated Shipping Schedule															
NSM4C31	Maintain Integrated Shipping Schedule			31MAR03*	20JUN03		 Maintain Integrated Shipping Schedule															
NSM4C17	Prepare MLS Work Package			14MAY03*	25JUN03		 Prepare MLS Work Package															
NSM4A08	Revise EM/RW Interface Schedule			22JUL03*	18AUG03		 Revise EM/RW Interface Schedule															
NSM4A09	Review & Comment Resolution			19AUG03	02SEP03		 Review & Comment Resolution															
NSM4A10	Issue Revised EM/RW Interface Sched				02SEP03	I3	 Issue Revised EM/RW Interface Sched															
Stakeholder Interaction																						
NSM5B09	Maintain Home Pg/Dev Information Pr			01OCT02	20DEC02		 Maintain Home Pg/Dev Information Pr															
NSM5B13	Update Brochure/Fact Sheets as Need			01OCT02	20DEC02		 Update Brochure/Fact Sheets as Need															
NSM5B10	Maintain Home Pg/Dev Information Pr			23DEC02	21MAR03		 Maintain Home Pg/Dev Information Pr															
NSM5B14	Update Brochure/Fact Sheets as Need			23DEC02	27MAR03		 Update Brochure/Fact Sheets as Need															

Start Date01OCT02

Finish Date30SEP03

Data Date01OCT02

Run Date11DEC02 15:22

Baseline

Progress Bar

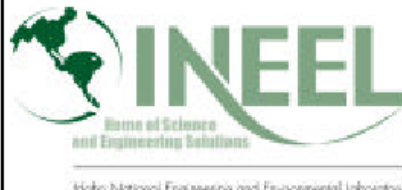
Critical Activity

AT01

National Spent Nuclear Fuel
FY-03
DWP03

Sheet 5 of 7

Program Management Plan
FY-03



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Idaho National Engineering and Environmental Laboratory

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	Activity ID	Activity Description	Early Start	Early Finish	MILE	FY03												FY04		
						S	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
Stakeholder Interaction																				
	NSM5B11	Maintain Home Pg/Dev Information Pr	24MAR03	20JUN03		<div></div>												Maintain Home Pg/Dev Information Pr		
	NSM5B15	Update Brochure/Fact Sheets as Need	28MAR03	26JUN03		<div></div>												Update Brochure/Fact Sheets as Need		
	NSM5A77	Prepare Stakeholder Interaction WP	14MAY03*	25JUN03		<div></div>												Prepare Stakeholder Interaction WP		
	NSM5B12	Maintain Home Pg/Dev Information Pr	23JUN03	29SEP03		<div></div>												Maintain Home Pg/Dev Information Pr		
	NSM5A78	Submit Stakeholder Interaction WP		25JUN03	I3	<div></div>												Submit Stakeholder Interaction WP		
	NSM5B16	Update Brochure/Fact Sheets as Need	27JUN03	29SEP03		<div></div>												Update Brochure/Fact Sheets as Need		
National SNF QA																				
NSNFP QA Program																				
National SNF QA																				
	NS11C01	NSNF QA Proj Management & Administration	01OCT02	30SEP03		<div></div>												NSNF QA Proj		
	NS11D01	Biannual NSNFP Strategy Meeting 1	01OCT02	28OCT02		<div></div>												Biannual NSNFP Strategy Meeting 1		
	NS11D02	NSNFP QA DOE-HQ Program Suport Meetings	01OCT02	30SEP03		<div></div>												NSNFP QA DOE		
	NS11D07	Quarterly Technical Exchange Meeting 1ST Qtr	01OCT02	20DEC02		<div></div>												Quarterly Technical Exchange Meeting 1ST Qtr		
	NS11D17	NSNFP Surveillance - Qtr 1	01OCT02	28OCT02		<div></div>												NSNFP Surveillance - Qtr 1		
	NS11D22	NSNFP Technical QA Support/Reviews - Qtr 1	01OCT02	20DEC02		<div></div>												NSNFP Technical QA Support/Reviews - Qtr 1		
	NS11D26	NSNFP Procedures/Documents Maintenance - Qtr 1	01OCT02	20DEC02		<div></div>												NSNFP Procedures/Documents Maintenance - Qtr 1		
	NS11D31	Corrective Action & Trending - Qtr 1	01OCT02	20DEC02		<div></div>												Corrective Action & Trending - Qtr 1		
	NS11F01	SNF Site Interface - Qtr 1	01OCT02	20DEC02		<div></div>												SNF Site Interface - Qtr 1		
	NS11F09	DOE SNF Site Surveillance No. 1 - SRS	01OCT02	21NOV02		<div></div>												DOE SNF Site Surveillance No. 1 - SRS		
	NS11F05	SRS Annual QA Program Audit	21OCT02*	19DEC02		<div></div>												SRS Annual QA Program Audit		
	NS11D08	Quarterly Technical Exchange Meeting 2nd Qtr	23DEC02	21MAR03		<div></div>												Quarterly Technical Exchange Meeting 2nd Qtr		
	NS11D18	NSNFP Surveillance - Qtr 2	23DEC02*	21MAR03		<div></div>												NSNFP Surveillance - Qtr 2		
	NS11D23	NSNFP Technical QA Support/Reviews - Qtr 2	23DEC02	21MAR03		<div></div>												NSNFP Technical QA Support/Reviews - Qtr 2		
	NS11D27	NSNFP Procedures/Documents Maintenance - Qtr 2	23DEC02	21MAR03		<div></div>												NSNFP Procedures/Documents Maintenance - Qtr 2		
	NS11D32	Corrective Action & Trending - Qtr 2	23DEC02*	21MAR03		<div></div>												Corrective Action & Trending - Qtr 2		
	NS11F02	SNF Site Interface - Qtr 2	23DEC02	21MAR03		<div></div>												SNF Site Interface - Qtr 2		
	NS11D14	NSNFP Supplier Evaluations - Qtr 2	03JAN03*	21MAR03		<div></div>												NSNFP Supplier Evaluations - Qtr 2		
	NS11F10	DOE SNF Site Surveillance No. 2 - RL	13JAN03*	21MAR03		<div></div>												DOE SNF Site Surveillance No. 2 - RL		
	NS11F11	DOE SNF Site Surveillance No. 3 - INEEL	13JAN03*	21MAR03		<div></div>												DOE SNF Site Surveillance No. 3 - INEEL		
	NS11D311	Issue Annual QA Trending & Status Report		03MAR03*	I3	<div></div>												Issue Annual QA Trending & Status Report		
	NS11F13	DOE SNF Site Surveillance No. 5 - ORNL	17MAR03*	28MAR03		<div></div>												DOE SNF Site Surveillance No. 5 - ORNL		
	NS11D09	Quarterly Technical Exchange Meeting 3rd Qtr	24MAR03	20JUN03		<div></div>												Quarterly Technical Exchange Meeting 3rd Qtr		
	NS11D19	NSNFP Surveillance - Qtr 3	24MAR03	20JUN03		<div></div>												NSNFP Surveillance - Qtr 3		
	NS11D24	NSNFP Technical QA Support/Reviews - Qtr 3	24MAR03	20JUN03		<div></div>												NSNFP Technical QA Support/Reviews - Qtr 3		
	NS11D28	NSNFP Procedures/Documents Maintenance - Qtr 3	24MAR03	20JUN03		<div></div>												NSNFP Procedures/Documents Maintenance - Qtr 3		
	NS11D33	Corrective Action & Trending - Qtr 3	24MAR03	20JUN03		<div></div>												Corrective Action & Trending - Qtr 3		
	NS11F03	SNF Site Interface - Qtr 3	24MAR03	20JUN03		<div></div>												SNF Site Interface - Qtr 3		
	NS11F08	INEEL QA Program Audit	24MAR03*	20JUN03		<div></div>												INEEL QA Program Audit		
	NS11D011	Biannual NSNFP Strategy Meeting 2	31MAR03*	25APR03		<div></div>												Biannual NSNFP Strategy Meeting 2		
Start Date 01OCT02																				
Finish Date 30SEP03																				
Data Date 01OCT02																				
Run Date 11DEC02 15:22																				
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AT01

Sheet 6 of 7

Baseline

Progress Bar

Critical Activity

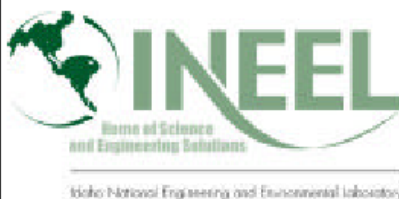
National Spent Nuclear Fuel

FY-03

DWP03

Program Management Plan

FY-03



Idaho National Engineering and Environmental Laboratory

Activity		Activity Description	Early Start	Early Finish	MILE	FY03												FY04	
ID	S					OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
	National SNF QA																		
	NS11F12	DOE SNF Site Surveillance No. 4 - SRS		07APR03*	20JUN03						DOE SNF Site Surveillance No. 4 - SRS								
	NS11F06	RL Annual QA Program Audit		02JUN03*	29AUG03						RL Annual QA Program Audit								
	NS11D10	Quarterly Technical Exchange Meeting 4th Qtr		23JUN03	29SEP03						Quarterly Technical Exchange Meeting 4th Qtr								
	NS11D16	NSNFP Supplier Evaluations - Qtr 4		23JUN03*	29SEP03						NSNFP Supplier Evaluations - Qtr 4								
	NS11D20	NSNFP Surveillance - Qtr 4		23JUN03	29SEP03						NSNFP Surveillance - Qtr 4								
	NS11D25	NSNFP Technical QA Support/Reviews - Qtr 4		23JUN03	29SEP03						NSNFP Technical QA Support/Reviews - Qtr 4								
	NS11D29	NSNFP Procedures/Documents Maintenance - Qtr 4		23JUN03	29SEP03						NSNFP Procedures/Documents Maintenance - Qtr 4								
	NS11D34	Corrective Action & Trending - Qtr 4		23JUN03	29SEP03						Corrective Action & Trending - Qtr 4								
	NS11F04	SNF Site Interface - Qtr 4		23JUN03	29SEP03						SNF Site Interface - Qtr 4								
	NS11D21	NSNFP Internal Audit		30JUN03*	30SEP03						NSNFP Internal Audit								
Technology Development																			
Weld Development																			
Weld Development																			
	NS55D10	FY-02 C/O - Weld Dev Building Lease		01OCT02	31JAN03	FY-02 C/O - Weld Dev Building Lease													
DOE-ID Programs																			
Spent Nuclear Fuels																			
ID-SNF-101 Pass Through																			
DOE-ID Funds																			
DOE-ID Funds																			
	NSDOE03	DOE-ID Funds		02SEP03*	22SEP03						DOE-ID Funds								

Milestone Log

National Spent Nuclear Fuel Program								
WBS Element	Milestone Number	Description	DWP Date	Actual Date	Forecast Date	Enforceable Date	Code	Comments
C.1.07.02.01.02.02	NS22Z17	Issue Phase I & II Criticality Reports	23-Sep-03		23-Sep-03		E2PB	
C.1.07.02.01.02.03	NS23D56	Complete Source Term Report	30-Sep-03		30-Sep-03		E2PB	
C.1.07.02.01.02.03	NS23F51	Complete DBE Report	30-Sep-03		30-Sep-03		E2PB	

12-DEC-2002
Current IPS Database